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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,825	11/21/2003	Alberto DiBella	5041.001	2975

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EXAMINER	
DRODGE, JOSEPH W	
ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/719,825	DIBELLA ET AL.	
	Examiner	Art Unit	
	Joseph W. Drodge	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4 and 7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4 and 7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The indicated allowability of claim 7 is withdrawn in view of the newly discovered reference(s) to Dahlquist patent 4,904,392 and Caracciolo patent 5,632,903. Rejections based on the newly cited reference(s) follow.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 now depends upon a canceled claim 3 and must be amended to depend from either claims 1 or 2, considering that if made to depend directly from claim 1 "said cylindrical filter" would then lack antecedent basis.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiBella patent 5,904,840 in view of Costinel patent 5,603,825, both of record, and in view of newly cited Sands et al patent 4,778,443 and Dahlquist patent 4,904,392.

DiBella '840 clearly discloses the claimed pump means 20, separation tube 30, means for centrifugally rotating or spinning 40, extraction conduit means 60, and monitoring and feedback means 82,84 and 90 (claim 1 of '840).
The claims differ in requiring at least one auxiliary filter. DiBella is drawn to filtering oil from water within oil spill cleanup devices (column 1, lines 7-10). DiBella also discloses that auxiliary separation devices in series, generally of the centrifugal type may be included to remove different liquid medium with greater efficiency (column 6, line 62-column 7, line 4).

Sands et al patent 4,778,443, is drawn to separation of oily from water or aqueous fluids, either within oil spill clean-up devices as in DiBella, or associated with ballast or bilge waters on ships (column 2, lines 56-63) and discloses a plurality of centrifugal separators in series with at least one downstream auxiliary filter (column 8, lines 63-66 and column 11, lines 23-34).

Costinel teaches cleaning oily contaminants from the bilge water on an ocean-going ship (see column 1, lines 15-29) a combination of centrifugal stages and a downstream filter stage having at least two filters (column 3, lines 62-67). It would have been obvious to one of ordinary skill in the art, to have supplemented the DiBella '840 system by replacing at least one of the auxiliary centrifugal separators with at least one auxiliary filter, as taught by Sands et al and Costinel, in order to remove finely emulsified oil and relatively smaller, harder to remove droplets of entrained oil from the water stream in order to allow a discharge of a more highly purified water stream.

The claims also differ in requiring a rotatable self-cleaning means for cleaning the auxiliary filter. However, Costinel teaches means for periodically cleaning the filter, by automatically backflushing the filter separators, as needed, such backflushing suggested as being triggered from data from probe means 70 that receives data concerning concentration of oily medium accumulating on the filter medium (column 10, line 65-column 11, line 9).

Dahlquist concerns separation of oil from water in a filter (column 1, lines 6-29), and teaches rotatable self cleaning means 23 for filter 11 that is self-rotating by the force of water impacting its surfaces during filter regeneration and cleans the filter by action of the water and its action on rotating blades or scrapers 23d (column 4, line 56-column 5, line 3).

Thus, it would have been additionally obvious to have utilized a rotatable self-cleaning means, as in Dahlquist, with the auxiliary filter(s) of the DiBella device, as

modified to include a filter in view of Sands and Costinel, in order to remove coalesced films of liquid which have accumulated on the filter surfaces.

Regarding claim 2, see cylindrical filters 120 and 140, of Costinel (column 7, lines 21-28) with respective inlets and outlets shown in column 10, lines 37-64 of Costinel.

Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiBella patent 5,904,840 in view of Costinel patent 5,603,825, Sands et al and Dahlquist as applied to claims 1 and 2 above, and further in view of Yang patent 5,472,604 and Caracciolo patent 5,632,903.

With respect to claim 7, DiBella '840 clearly discloses the claimed pump means 20, separation tube 30, means for centrifugally rotating or spinning 40, extraction conduit means 60, and monitoring and feedback means 82,84 and 90 (claim 1 of '840). The claims differ in requiring at least one auxiliary filter. DiBella is drawn to filtering oil from water within oil spill cleanup devices (column 1, lines 7-10). DiBella also discloses that auxiliary separation devices in series, generally of the centrifugal type may be included to remove different liquid medium with greater efficiency (column 6, line 62-column 7, line 4).

Sands et al patent 4,778,443, is drawn to separation of oily from water or aqueous fluids, either within oil spill clean-up devices as in DiBella, or associated with ballast or bilge waters on ships (column 2, lines 56-63) and discloses a plurality of centrifugal separators in series with at least one downstream auxiliary filter (column 8, lines 63-66 and column 11, lines 23-34).

Costinel teaches cleaning oily contaminants from the bilge water on an ocean-going ship (see column 1, lines 15-29) a combination of centrifugal stages and a downstream filter stage having at least two cylindrical filters (column 3, lines 62-67). It would have been obvious to one of ordinary skill in the art, to have supplemented the DiBella '840 system by replacing at least one of the auxiliary centrifugal separators with at least one auxiliary cylindrical filter, as taught by Sands et al and Costinel, in order to remove finely emulsified oil and relatively smaller, harder to remove droplets of entrained oil from the water stream in order to allow a discharge of a more highly purified water stream.

Claim 7 also differs in requiring a rotatable self-cleaning means for cleaning the auxiliary filter. However, Costinel teaches means for periodically cleaning the filter, by automatically backflushing the filter separators, as needed, such backflushing suggested as being triggered from data from probe means 70 that receives data concerning concentration of oily medium accumulating on the filter medium (column 10, line 65-column 11, line 9).

Dahlquist concerns separation of oil from water in a filter (column 1, lines 6-29), and teaches rotatable self cleaning means 23 for filter 11 that is self-rotating by the force of water impacting its surfaces during filter regeneration and cleans the filter by action of the water and its action on rotating blades or scrapers 23d (column 4, line 56-column 5, line 3).

Thus, it would have been additionally obvious to have utilized a rotatable self-cleaning means, as in Dahlquist, with the auxiliary filter(s) of the DiBella device, as

modified to include a filter in view of Sands and Costinel, in order to remove coalesced films of liquid which have accumulated on the filter surfaces.

Claims 4 and 7 further differ in requiring that the filter self-cleaning means comprises an elongate spray tube having a plurality of spray apertures oriented so as to direct pressurized fluid onto the cylindrical filter; claim 7 also requiring means for rotating this spray tube in response to data gathered from a contamination probe means extending into the filter. Caracciolo teaches to filter both solid contaminants and other fluids from water (column 1, lines 26-39) using a cylindrical filter element 22 that is cleaned by a rotating spray tube 24, in response to sensed contamination within the filter (column 3, line 60-column 4,line 3). Such spray tube is equipped with both spray apertures 30 and rotating blades 28 (column 3, lines 27-32). Also, Yang teaches a rotating spray tube 33 with spray apertures 31 for cleaning a cylindrical filter (Abstract, et. Seq.). It would have also been obvious to have incorporated a rotating spray tube with spray apertures, and means for controlling rotation of such spray tube based on sensed contamination levels within the filter, as taught by Caracciolo and Yang, in order to optimize filter operation and economically utilize an optimum amount of fluid and energy for cleaning of the filter of the Dibella arrangement as modified by Costinel, Sands et al and Dahlquist.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

February 2, 2006

JOSEPH DRODGE
PRIMARY EXAMINER